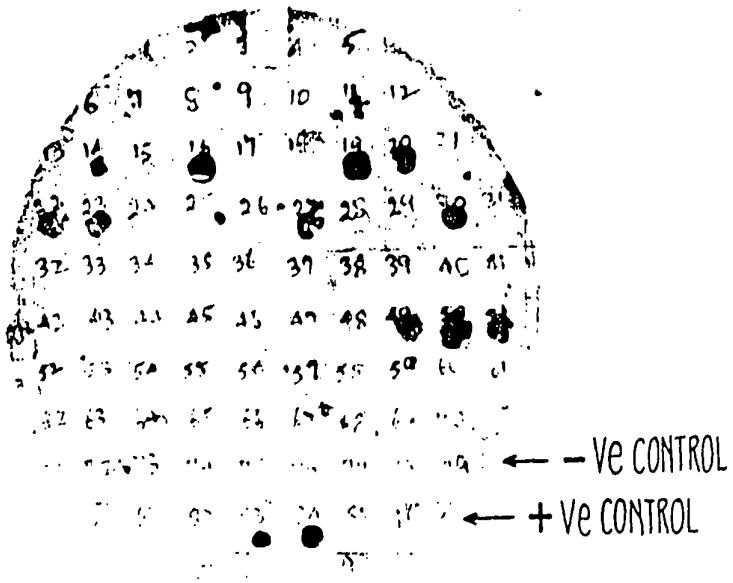


Fig. 1A

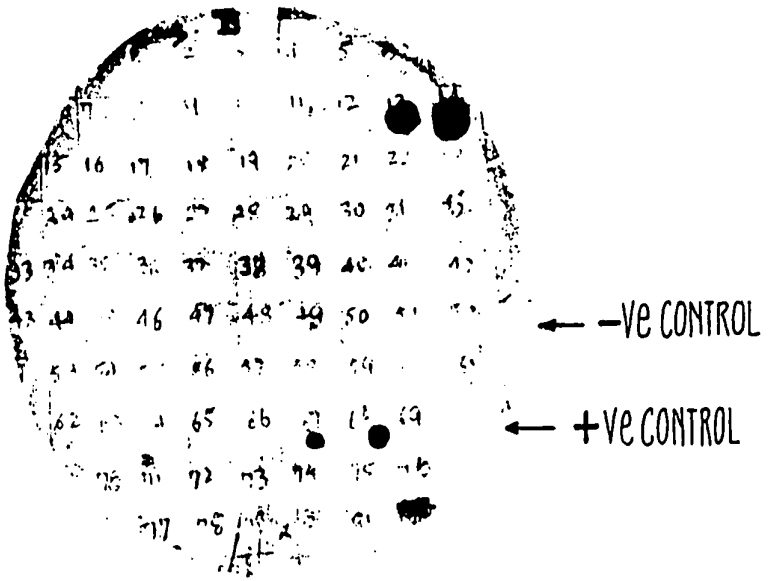
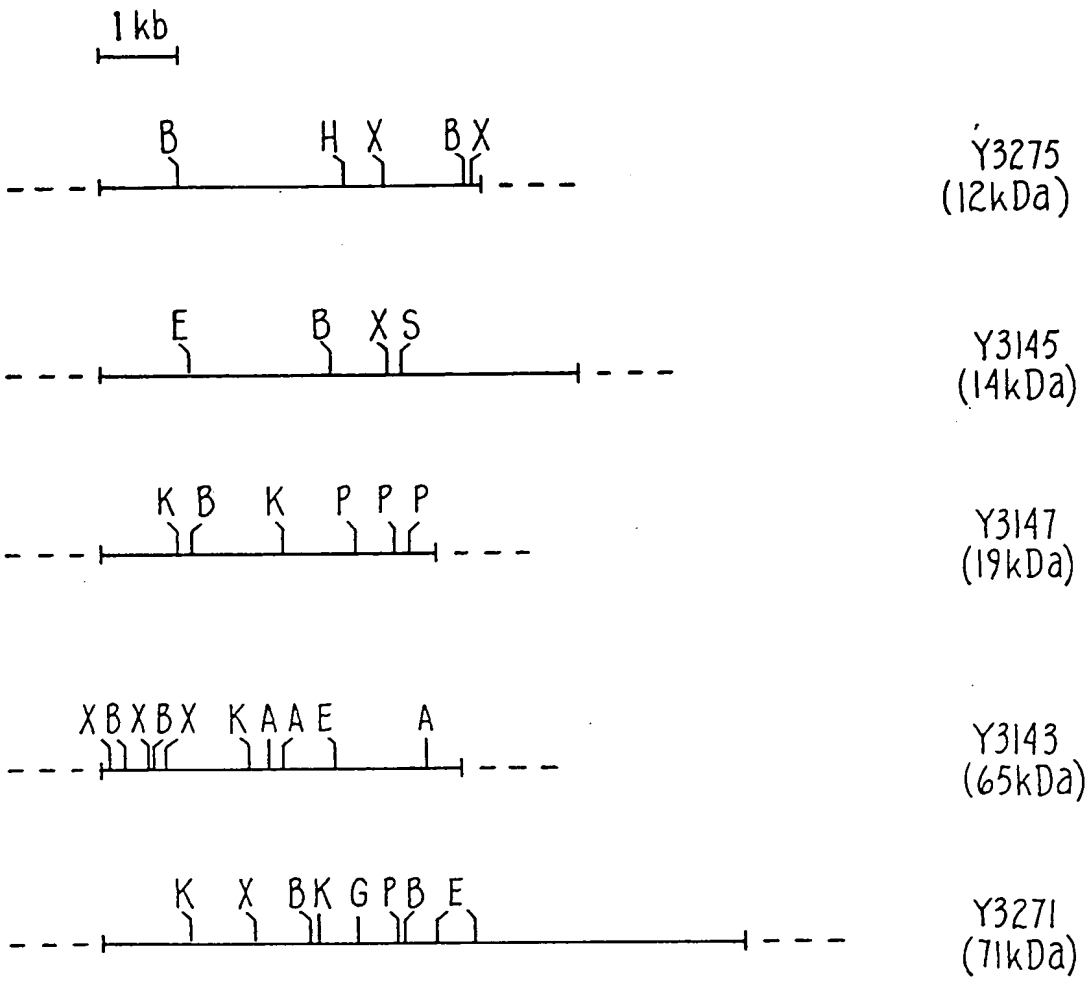


Fig. 1B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H X
B X
Y3275
(12kDa)
E
B X S
Y3145
(14kDa)
K B
K
P P P
Y3147
(19kDa)
X B X B X
K A A E
A
Y3143
(65kDa)
K
X
B K
G P B
E
Y3271
(71kDa)

Fig. 2A

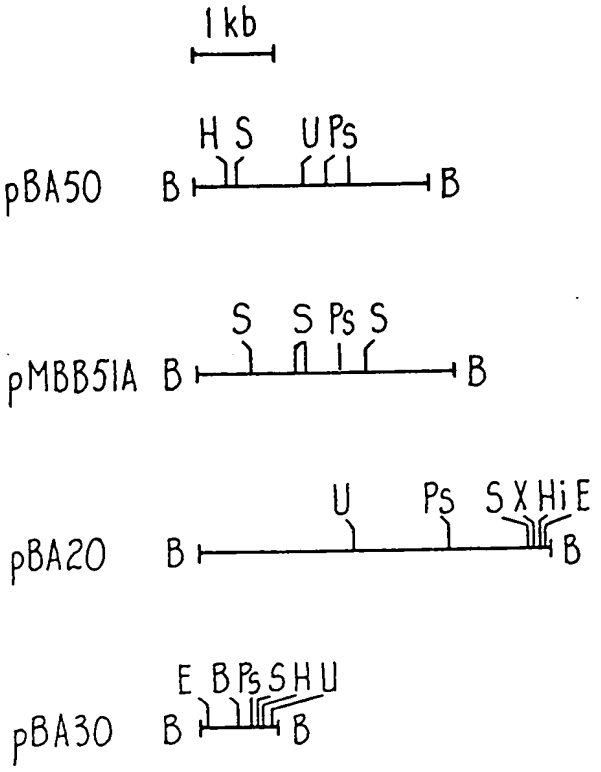
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Fig. 2B

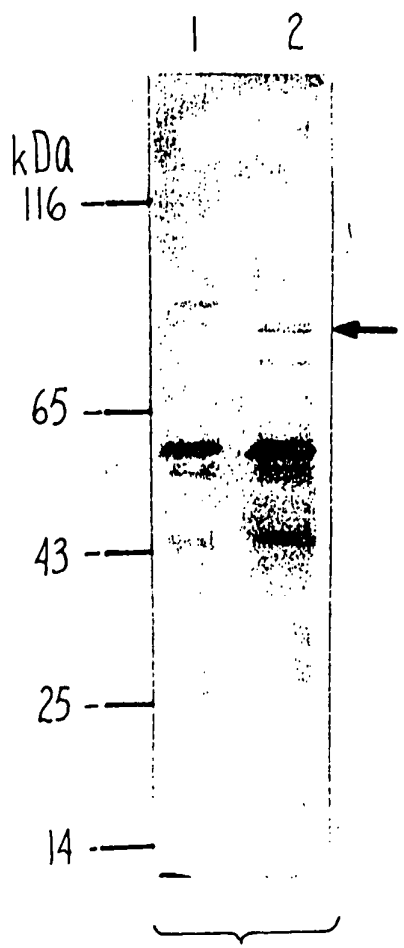

Fig. 3A

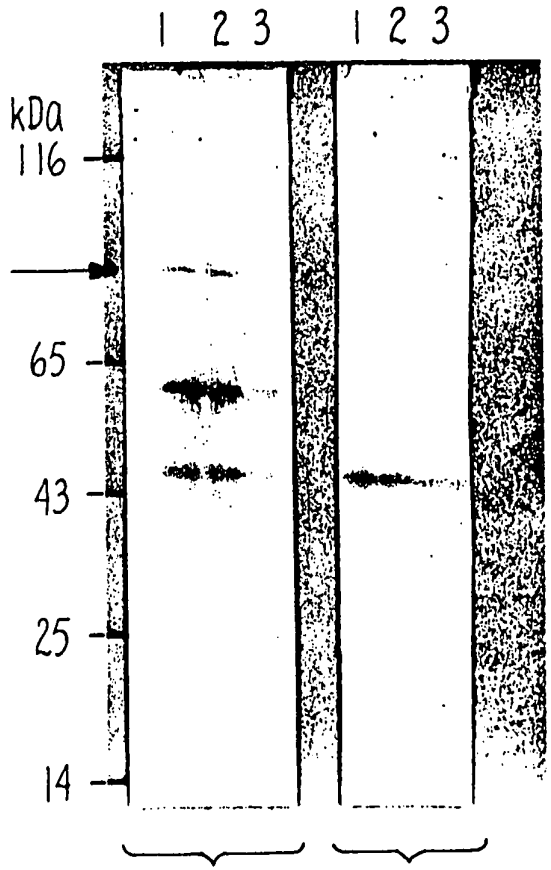

Fig. 3B Fig. 3C

Fig. 4A

```
                                                                        80
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GTGGCCGGCAGCCACGCATCTACTACGGCACCATCCTGACCGGTGACCAATACCTTCACTGCGAGCGCACCCGCAACCGG
CTGCACCACGAACTCGGCGGTATGGCCGTCGAAATGGAAGGCGGTGCGGTGGCGCAAATCTGCGCGTCCTTCGATATCCC
ATGGCTGGTCATTCGCGCGCTCTCCGATCTCGCCGGAGCCGATTCGGGGGTGGACTTCAATCGGTTTGTCGGCGAGGTGG

                                          -35                -10          480
CGGCCAGTTCGGCCCGCGTTCTGCTGCGCTTGCTGCCGGTGTTGACGGCCTGTTGAAGACGACTATCCGCCGGTGCGTTC

ACCGCGTCAGGCGGCTTCGGTGAGGTGAGTAATTTGGTCATTAACTTGGTCATGCCGCCGCCGATGTTGAGCGGAGGCCA

                          S/D      508
CAGGTCGGCCGGAAGTGAGGAGCCACG ATG ACG GCG GCC GTG ACC GGT GAA CAC CAC GCG AGT GTG
                             MET Thr Ala Ala Val Thr Gly Glu His His Ala Ser Val
                               1
                                                                      600
   550
CAG CGG ATA CAA CTC AGA ATC AGC GGG ATG TCG TGC TCT GCG TGC GCC CAC CGT GTG GAA
Gln Arg Ile Gln Leu Arg Ile Ser Gly MET Ser Cys Ser Ala Cys Ala His Arg Val Glu
                          20
                                                  650
TCG ACC CTC AAC AAG CTG CCG GGG GTT CGG GCA GCT GTG AAC TTC GGC ACC CGG GTG GCA
Ser Thr Leu Asn Lys Leu Pro Gly Val Arg Ala Ala Val Asn Phe Gly Thr Arg Val Ala
                          40
                                              700
ACC ATC GAC ACC AGC GAG GCG GTC GAC GCT GCC GCG CTG TGC CAG GCG GTC CGC CGC GCG
Thr Ile Asp Thr Ser Glu Ala Val Asp Ala Ala Ala Leu Cys Gln Ala Val Arg Arg Ala
                          60
                                    750
GGC TAT CAG GCC GAT CTG TGC ACG GAT GAC GGT CGG AGC GCG AGT GAT CCG GAC GCC GAC
Gly Tyr Gln Ala Asp Leu Cys Thr Asp Asp Gly Arg Ser Ala Ser Asp Pro Asp Ala Asp
                          80
                  800
CAC GCT CGA CAG CTG CTG ATC CGG CTA GCG ATC GCC GCC GTG CTG TTT GTG CCC GTG GCC
His Ala Arg Gln Leu Leu Ile Arg Leu Ala Ile Ala Ala Val Leu Phe Val Pro Val Ala
                         100
```

Fig. 4B

```
850                                                                      900
GAT CTG TCG GTG ATG TTT GGG GTC GTG CCT GCC ACG CGC TTC ACC GGC TGG CAG TGG GTG
Asp Leu Ser Val MET Phe Gly Val Val Pro Ala Thr Arg Phe Thr Gly Trp Gln Trp Val
                        120
                                                             950
CTA AGC GCG CTG GCA CTG CCG GTC GTG ACC TGG GCG GCG TGG CCG TTT CAC CGC GTT GCG
Leu Ser Ala Leu Ala Leu Pro Val Val Thr Trp Ala Ala Trp Pro Phe His Arg Val Ala
                        140
                                            1000
ATG CGC AAC GCC CGC CAC CAC GCC GCC TCC ATG GAG ACG CTA ATC TCG GTC GGT ATC ACG
MET Arg Asn Ala Arg His His Ala Ala Ser MET Glu Thr Leu Ile Ser Val Gly Ile Thr
                        160
                           1050
GCC GCC ACG ATC TGG TCG CTG TAC ACC GTC TTC GGC AAT CAC TCG CCC ATC GAG CGC AGC
Ala Ala Thr Ile Trp Ser Leu Tyr Thr Val Phe Gly Asn His Ser Pro Ile Glu Arg Ser
                 1100   180
GGC ATA TGG CAG GCG CTG CTG GGA AGC GAT GCT ATT TAT TTC GAG GTC GCG GCG GGT GTC
Gly Ile Trp Gln Ala Leu Leu Gly Ser Asp Ala Ile Tyr Phe Glu Val Ala Ala Gly Val
                        200
                                                                      1200
1150
ACG GTG TTC GTG CTG GTG GGG CGG TAT TTC GAG GCG CGC GCC AAG TCG CAG GCG GGC AGT
Thr Val Phe Val Leu Val Gly Arg Tyr Phe Glu Ala Arg Ala Lys Ser Gln Ala Gly Ser
                        220
                                                         1250
GCG CTG AGA GCC TTG GCG GCG CTG AGC GCC AAG GAA GTA GCC GTC CTG CTA CCG GAT GGG
Ala Leu Arg Ala Leu Ala Ala Leu Ser Ala Lys Glu Val Ala Val Leu Leu Pro Asp Gly
                        240
                                        1300
TCG GAG ATG GTC ATC CCG GCC GAC GAA CTC AAA GAA CAG CAG CGC TTC GTG GTG CGT CCA
Ser Glu MET Val Ile Pro Ala Asp Glu Leu Lys Glu Gln Gln Arg Phe Val Val Arg Pro
                        260
                           1350
GGG CAG ATA GTT GCC GCC GAC GGC CTC GCC GTC GAC GGG TCC GCT GCG GTC GAC ATG AGC
Gly Gln Ile Val Ala Ala Asp Gly Leu Ala Val Asp Gly Ser Ala Ala Val Asp MET Ser
                        280
```

1400
GCG ATG ACC GGC GAG GCC AAA CCG ACC CGG GTG CGT CCG GGG GGG CAG GTC ATC GGC GGC
Ala MET Thr Gly Glu Ala Lys Pro Thr Arg Val Arg Pro Gly Gly Gln Val Ile Gly Gly
300

1450 1500
ACC ACA GTG CTT GAC GGC CGG CTG ATC GTG GAG GCG GCC GCG GTG GGC GCC GAC ACC CAG
Thr Thr Val Leu Asp Gly Arg Leu Ile Val Glu Ala Ala Ala Val Gly Ala Asp Thr Gln
320

1550
TTC GCC GGA ATG GTC CGC CTC GTT GAG CAA GCG CAG GCG CAA AAG GCC GAC GCA CAG CGA
Phe Ala Gly MET Val Arg Leu Val Glu Gln Ala Gln Ala Gln Lys Ala Asp Ala Gln Arg
340

1600
CTA GCC GAC CGG ATC TCC TCG GTG TTT GTT CCC GCT GTG TTG GTT ATC GCG GCA CTA ACC
Leu Ala Asp Arg Ile Ser Ser Val Phe Val Pro Ala Val Leu Val Ile Ala Ala Leu Thr
360

1650
GCA GCC GGA TGG CTA ATC GCC GGG GGA CAA CCC GAC CGT GCC GTC TCG GCC GCA CTC GCC
Ala Ala Gly Trp Leu Ile Ala Gly Gly Gln Pro Asp Arg Ala Val Ser Ala Ala Leu Ala
380

Fig.4C

1700
GTG CTT GTC ATC GCC TGC CCG TGT GCC CTG GGG CTG GCG ACT CCG ACC GCG ATG ATG GTG
Val Leu Val Ile Ala Cys Pro Cys Ala Leu Gly Leu Ala Thr Pro Thr Ala MET MET Val
400

1750 1800
GCC TCT GGT CGC GGT GCC CAG CTC GGA ATA TTT CTG AAG GGC TAC AAA TCG TTG GAG GCC
Ala Ser Gly Arg Gly Ala Gln Leu Gly Ile Phe Leu Lys Gly Tyr Lys Ser Leu Glu Ala
420

1850
ACC CGC GCG GTG GAC ACC GTC GTC TTC GAC AAG ACC GGC ACC CTG ACG ACG GGC CGG CTG
Thr Arg Ala Val Asp Thr Val Val Phe Asp Lys Thr Gly Thr Leu Thr Thr Gly Arg Leu
440

1900
CAG GTC AGT GCG GTG ACC GCG GCA CCG GGC TGG GAG GCC GAC CAG GTG CTC GCC TTG GCC
Gln Val Ser Ala Val Thr Ala Ala Pro Gly Trp Glu Ala Asp Gln Val Leu Ala Leu Ala
460

1950
GCG ACC GTG GAA GCC GCG TCC GAG CAC TCG GTG GCG CTC GCG ATC GCC GCG GCA ACG ACT
Ala Thr Val Glu Ala Ala Ser Glu His Ser Val Ala Leu Ala Ile Ala Ala Ala Thr Thr
480

2000
CGG CGA GAC GCG GTC ACC GAC TTT CGC GCC ATA CCC GGC CGC GGC GTC AGC GGC ACC GTG
Arg Arg Asp Ala Val Thr Asp Phe Arg Ala Ile Pro Gly Arg Gly Val Ser Gly Thr Val
500

2050 2100
TCC GGG CGG GCG GTA CGG GTG GGC AAA CCG TCA TGG ATC GGG TCC TCG TCG TGC CAC CCC
Ser Gly Arg Ala Val Arg Val Gly Lys Pro Ser Trp Ile Gly Ser Ser Ser Cys His Pro
520

2150
AAC ATG CGC GCG GCC CGG CGC CAC GCC GAA TCG CTG GGT GAG ACG GCC GTA TTC GTC GAG
Asn MET Arg Ala Ala Arg Arg His Ala Glu Ser Leu Gly Glu Thr Ala Val Phe Val Glu
540

Fig. 4D

2200
GTC GAC GGC GAA CCA TGC GGG GTC ATC GCG GTC GCC GAC GCC GTC AAG GAC TCG GCG CGA
Val Asp Gly Glu Pro Cys Gly Val Ile Ala Val Ala Asp Ala Val Lys Asp Ser Ala Arg
560

2250
GAC GCC GTG GCC GCC CTG GCC GAT CGT GGT CTG CGC ACC ATG CTG TTG ACC GGT GAC AAT
Asp Ala Val Ala Ala Leu Ala Asp Arg Gly Leu Arg Thr MET Leu Leu Thr Gly Asp Asn
580

2300
CCC GAA TCG GCG GCG GCC GTG GCT ACT CGC GTC GGC ATC GAC GAG GTG ATC GCC GAC ATC
Pro Glu Ser Ala Ala Ala Val Ala Thr Arg Val Gly Ile Asp Glu Val Ile Ala Asp Ile
600

2350 2400
CTG CCG GAA GGC AAG GTC GAT GTC ATC GAG CAG CTA CGC GAC CGC GGA CAT GTC GTC GCC
Leu Pro Glu Gly Lys Val Asp Val Ile Glu Gln Leu Arg Asp Arg Gly His Val Val Ala
620

2450
ATG GTC GGT GAC GGC ATC AAC GAC GGA CCC GCA CTG GCC CGT GCC GAT CTA GGC ATG GCC
MET Val Gly Asp Gly Ile Asn Asp Gly Pro Ala Leu Ala Arg Ala Asp Leu Gly MET Ala
640

Fig.4E

```
                                                    2500
ATC GGG CGC GGC ACG GAC GTC GCG ATC GGT GCC GCC GAC ATC ATC TTG GTC CGC GAC CAC
Ile Gly Arg Gly Thr Asp Val Ala Ile Gly Ala Ala Asp Ile Ile Leu Val Arg Asp His
                          660
                               2550
CTC GAC GTT GTA CCC CTT GCG CTT GAC CTG GCA AGG GCC ACG ATG CGC ACC GTC AAA CTC
Leu Asp Val Val Pro Leu Ala Leu Asp Leu Ala Arg Ala Thr MET Arg Thr Val Lys Leu
                          680
                    2600
AAC ATG GTC TGG GCA TTC GGA TAC AAC ATC GCC GCG ATT CCC GTC GCC GCT GCC GGA CTG
Asn MET Val Trp Ala Phe Gly Tyr Asn Ile Ala Ala Ile Pro Val Ala Ala Ala Gly Leu
                          700
 2650                                                                    2700
CTC AAC CCC CTG GTG GCC GGT GCG GCC ATG GCG TTC TCA TCG TTC TTC GTG GTC TCA AAC
Leu Asn Pro Leu Val Ala Gly Ala Ala MET Ala Phe Ser Ser Phe Phe Val Val Ser Asn
                          720
                                                         2750
AGC TTG CGG TTG CGC AAA TTT GGG CGA TAC CCG CTA GGC TGC GGA ACC GTC GGT GGG CCA
Ser Leu Arg Leu Arg Lys Phe Gly Arg Tyr Pro Leu Gly Cys Gly Thr Val Gly Gly Pro
                          740

CAA ATG ACC GCG CCG TCG TCC GCG TGA TGCGTTGTCGGGCAACACGATATCGGGCTCAGCGGCGACCGCA
Gln MET Thr Ala Pro Ser Ser Ala TER
                               761

TCCGGTCTCGGCCGAGGACCAGAGGCGCTTCGCCACACCATGATTGCCAGGACCGCGCCGATCACCACCGGCAGATGAGT
CAAAATCCGCGTGGTGCTGACCGCGCCGGACAGCGCATCCACAATCACATAGCCGGTCAGTATGGCGACGAACGCCGTCA
GAACACCGGCCAGGCCGGCGGCGGCGCTCGGCCATAGCGCCGCGCCCACCATGATCACACCGAGCGCAATCGACCACGAC
GTGACTCGTTGAGCAAGTGGGTGCCGGCACCCGTCGGGTGCTGATGGGTCAGGCCGACGTCTAGGCCAAACCCCTGCACG
GTGCCCAGGGCGATCTGCGCGATGCCCACGCACAGCAACGCCCAACGTCGCCAGGTCATCGGTGAATGTTGCCGCCGCGG
          3250
CGCCCGGCGGATCC
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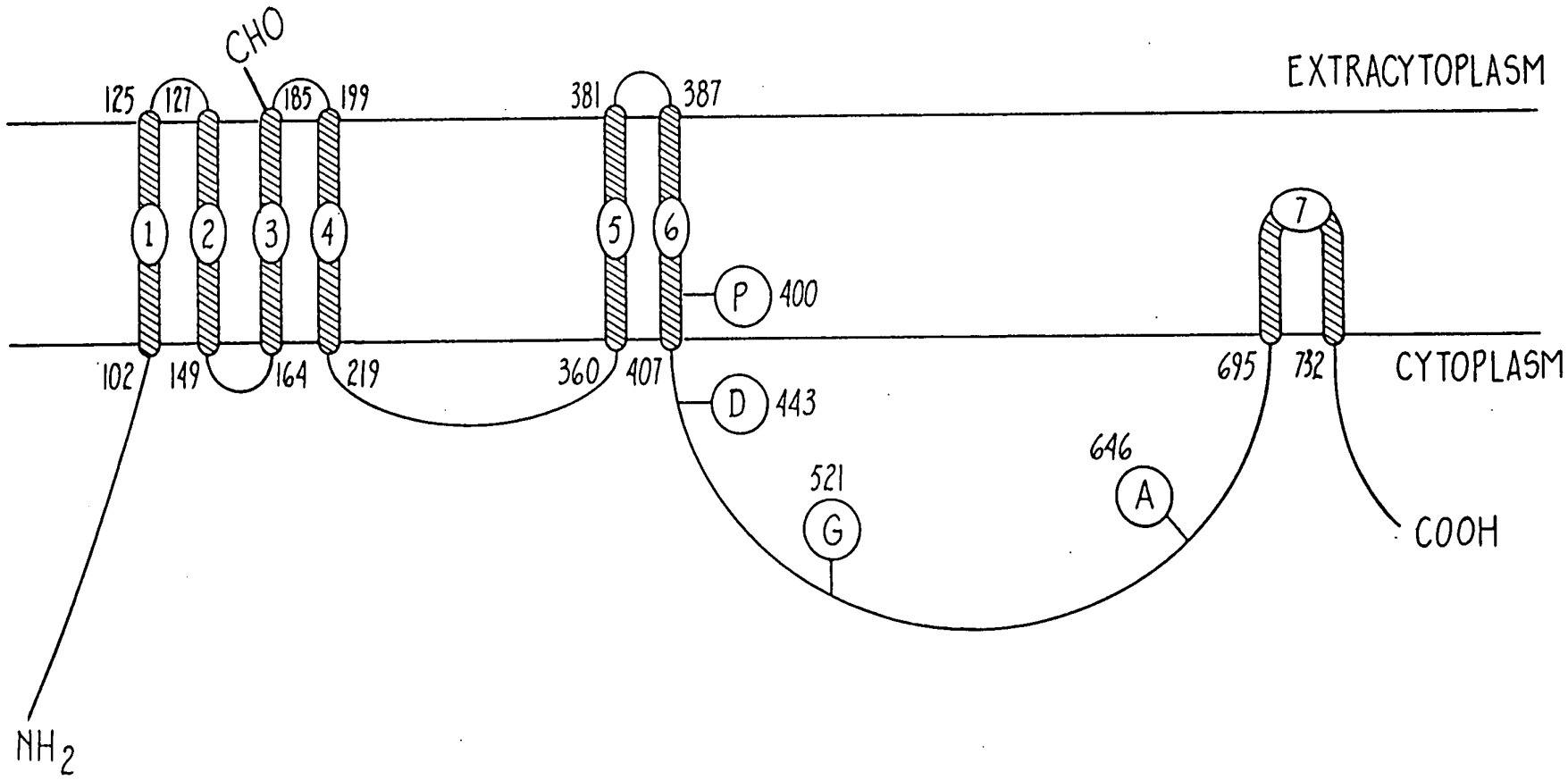
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127
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199
381
387
EXTRACYTOPLASM
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2
3
4
5
6
7
P
400
D
443
102
149
164
219
360
407
695
732
CYTOPLASM
646
A
521
G
COOH
NH2

Fig. 5

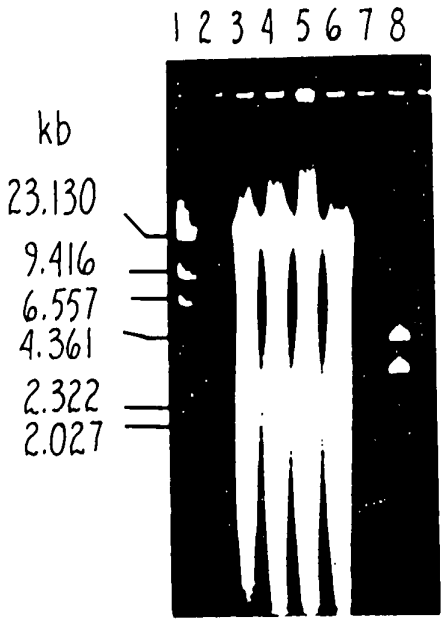

Fig. 6A

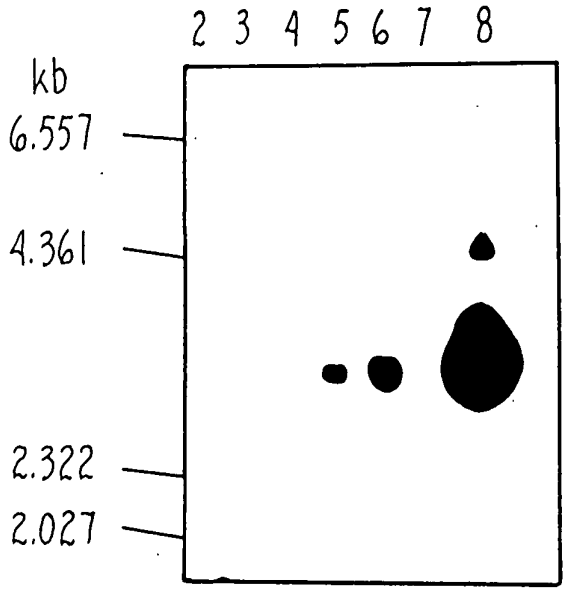

Fig. 6B